

STREAMBANK & SHORELINE PROTECTION

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 580



STREAMBANK & SHORELINE PROTECTION

Streambank & shoreline protection is using vegetation or structural techniques to stabilize and protect banks of streams, lakes, estuaries, or excavated channels against scour and erosion.

PRACTICE INFORMATION

This practice applies to natural or excavated channels where the streambanks are susceptible to erosion from the action of water, ice, debris, or to damage from livestock or vehicular traffic. It also applies to controlling erosion on shorelines where the problem can be solved with

relatively simple structural measures, or vegetation.

The purpose (s) of this practice include the following:

1. Prevent loss of land mass
2. Prevent damage to utilities, roads, buildings, other facilities including conservation practices adjacent to the banks
3. Maintain the capacity of the channel
4. control channel meandering
5. Reduce sediment loads causing downstream damage and pollution
6. Improve the stream for recreation
7. Improve the stream for fish and wildlife

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

STATE	Iowa	FIELD OFFICE		DATE	12/5/96
PRACTICE: 580 Streambank & shoreline protection			NOTES: Effects vary widely depending on methodology		
RESOURCE: SOIL RESOURCE CONCERN: EROSION			Help Message: Click on form field for choice lists. Tab key to move around. "N/A" is the default.		
RESOURCE INDICATORS			PHYSICAL EFFECTS		
SHEET AND RILL			insignificant		
WIND			insignificant		
EPHEMERAL GULLY			insignificant		
CLASSIC GULLY			N/A		
STREAMBANK			significant reduction in streambank erosion		
IRRIGATION INDUCED			N/A		
SOIL MASS MOVEMENT			significant reduction in mass movement of soil		
ROADBANK/CONSTRUCTION			N/A		
OTHER					
RESOURCE CONCERN: SOIL CONDITION					
SOIL TILTH			N/A		
SOIL COMPACTION			N/A		
SOIL CONTAMINATION					
• SALTS			N/A		
• ORGANICS			N/A		
• FERTILIZERS			N/A		
• PESTICIDES			N/A		
• OTHER					
DEPOSITION/DAMAGE					
• ONSITE			moderate reduction/onsite deposition damage		
• OFFSITE			moderate decrease/offsite deposition damage		
DEPOSITION/SAFETY					
• ONSITE			moderately improve onsite safety/deposition		
• OFFSITE			moderately improve offsite safety hazard/depos.		
OTHER					
RESOURCE: WATER RESOURCE CONCERN: WATER QUANTITY					
SEEPS			N/A		
RUNOFF/FLOODING			N/A		
EXCESS SUBSURFACE WATER			N/A		
INADEQUATE OUTLETS			N/A		
WATER MGT. IRRIGATION					
• SURFACE			N/A		
• SPRINKLER			N/A		
WATER MGT. NON-IRRIGATED			N/A		
RESTRICTED FLOW CAPACITY					
• ONSITE			N/A		
• OFFSITE			N/A		
RESTRICTED STORAGE			N/A		
OTHER					

RESOURCE: WATER	
RESOURCE CONCERN: WATER QUALITY	
RESOURCE INDICATORS	PHYSICAL EFFECTS
GROUNDWATER CONTAMINANTS	
• PESTICIDES	N/A
• NUTRIENTS AND ORGANICS	N/A
• SALINITY	N/A
• HEAVY METALS	N/A
• PATHOGENS	N/A
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	slight reduction in SWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight reduction in SWater contam./nutr.,organics
• SUSPENDED SEDIMENTS	sign. reduction in SWater contam./susp. sedi.
• LOW DISSOLVED OXYGEN	insignificant
• SALINITY	insignificant
• HEAVY METALS	insignificant
• WATER TEMPERATURE	slight reduction in SWater contam./H2O temp.
• PATHOGENS	slight decrease in SWater contam./pathogens
AQUATIC HABITAT SUITABILITY	significant improvement in Aqua. Hab. Suit.
OTHER	
RESOURCE: AIR	
RESOURCE CONCERN: AIR QUALITY	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: AIR CONDITION	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

[illegible]

RESOURCE: HUMAN	
RESOURCE CONCERN: SOCIAL CONSIDERATIONS	
RESOURCE INDICATORS	PHYSICAL EFFECTS
PUBLIC HEALTH AND SAFETY	sign. improvement in public health & safety
PRIVATE/PUBLIC VALUES	sign. improvement in private/public values
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	N/A
TENURE	N/A
OTHER	
RESOURCE CONCERN: CULTURAL CONSIDERATIONS	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	N/A
SIGNIFICANCE OF CULTURAL RESOURCES	N/A
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	N/A
OTHER	